



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

RECEIVED

DEC 03 1992

DEC 04 1992

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

REML SECTION

Mr. Clifford Greenwalt  
President and CEO  
Central Illinois Public Service  
607 East Adams Street  
Springfield, Illinois 62739

Re: Martha C. Rose Chemicals, Inc. Site  
Holden, Missouri  
Administrative Order for RD/RA

File: Rose, Martha  
ID #: MOD 920633069  
Break: 10.6  
Date: 12-3-92  
078D

Dear Mr. Greenwalt:

Enclosed is a Modification to the Administrative Order, Docket No. VII-92-F-0026. The Administrative Order was issued by Region VII of the U.S. Environmental Protection Agency (EPA) to members of the Rose Chemicals Steering Committee on September 2, 1992. The enclosed Modification amends certain portions of the September 2, 1992 Administrative Order and is issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Comprehensive and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a). All provisions of the Administrative Order not amended by the enclosed Modification remain in full force and effect.

Please note that the effective date of the Administrative Order as amended by the Modification is seventeen (17) days from the date the Modification is signed by the Regional Administrator of EPA. If you have questions regarding the enclosed Order please contact me at (913) 551-7276.

Sincerely,

*J. Scott Pemberton*

J. Scott Pemberton  
Senior Assistant Regional Counsel

Enclosure

cc: Sheldon Zabel, Esquire  
Schiff Hardin & Waite

Beverlee DeStein, DOJ

Mark Cochran, Manager  
Environmental Affairs, Central Illinois Public Service



40024377  
SUPERFUND RECORDS





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

DEC 03 1992

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

Mr. Scott O. Brame  
President and CEO  
Central Louisiana Electric Co., Inc.  
2030 Donahue Ferry Road  
Pineville, Louisiana 71361

Re: Martha C. Rose Chemicals, Inc. Site  
Holden, Missouri  
Administrative Order for Remedial  
Design/Remedial Action

Dear Mr. Brame:

Enclosed is a Modification to the Administrative Order, Docket No. VII-92-F-0026. The Administrative Order was issued by Region VII of the U.S. Environmental Protection Agency (EPA) to members of the Rose Chemicals Steering Committee on September 2, 1992. The enclosed Modification amends certain portions of the September 2, 1992 Administrative Order and is issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Comprehensive and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a). All provisions of the Administrative Order not amended by the enclosed Modification remain in full force and effect.

Please note that the effective date of the Administrative Order as amended by the Modification is seventeen (17) days from the date the Modification is signed by the Regional Administrator of EPA. If you have questions regarding the enclosed Order please contact me at (913) 551-7276.

Sincerely,

J. Scott Pemberton  
Senior Assistant Regional Counsel

Enclosure

cc: Sheldon Zabel, Esquire  
Schiff Hardin & Waite

Beverlee DeStein, DOJ

Paul Turregano, Steering Committee Member  
Central Louisiana Electric Co., Inc.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

DEC 03 1992

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

Mr. J. Martin Thrasher  
Director, Environmental Services  
Colorado Springs Department of Utilities  
102 South Weber  
Colorado Springs, Colorado 80903

Re: Martha C. Rose Chemicals, Inc. Site  
Holden, Missouri  
Administrative Order for Remedial  
Design/Remedial Action

Dear Mr. Thrasher:

Enclosed is a Modification to the Administrative Order, Docket No. VII-92-F-0026. The Administrative Order was issued by Region VII of the U.S. Environmental Protection Agency (EPA) to members of the Rose Chemicals Steering Committee on September 2, 1992. The enclosed Modification amends certain portions of the September 2, 1992 Administrative Order and is issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Comprehensive and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a). All provisions of the Administrative Order not amended by the enclosed Modification remain in full force and effect.

Please note that the effective date of the Administrative Order as amended by the Modification is seventeen (17) days from the date the Modification is signed by the Regional Administrator of EPA. If you have questions regarding the enclosed Order please contact me at (913) 551-7276.

Sincerely,

J. Scott Pemberton  
Senior Assistant Regional Counsel

Enclosure

cc: Sheldon Zabel, Esquire  
Schiff Hardin & Waite

Beverlee DeStein, DOJ



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

DEC 03 1992

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

Mr. Bide L. Thomas  
President  
Commonwealth Edison Company  
1 First National Plaza  
Chicago, Illinois 60603

Re: Martha C. Rose Chemicals, Inc. Site  
Holden, Missouri  
Administrative Order for Remedial  
Design/Remedial Action

Dear Mr. Thomas:

Enclosed is a Modification to the Administrative Order, Docket No. VII-92-F-0026. The Administrative Order was issued by Region VII of the U.S. Environmental Protection Agency (EPA) to members of the Rose Chemicals Steering Committee on September 2, 1992. The enclosed Modification amends certain portions of the September 2, 1992 Administrative Order and is issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Comprehensive and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a). All provisions of the Administrative Order not amended by the enclosed Modification remain in full force and effect.

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Sincerely,

J. Scott Pemberton  
Senior Assistant Regional Counsel

Enclosure

cc: Sheldon Zabel, Esquire  
Schiff Hardin & Waite

Beverlee DeStein, DOJ

Diane Richardson, Steering Committee Representative  
Commonwealth Edison Company



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

DEC 03 1992

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

Mr. Robert C. Stempel  
Chairman of the Board and CEO  
General Motors Corporation  
30400 Mound Road  
Warren, Michigan 48090-9015

Re: Martha C. Rose Chemicals, Inc. Site  
Holden, Missouri  
Administrative Order for Remedial  
Design/Remedial Action

Dear Mr. Stempel:

Enclosed is a Modification to the Administrative Order, Docket No. VII-92-F-0026. The Administrative Order was issued by Region VII of the U.S. Environmental Protection Agency (EPA) to members of the Rose Chemicals Steering Committee on September 2, 1992. The enclosed Modification amends certain portions of the September 2, 1992 Administrative Order and is issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Comprehensive and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a). All provisions of the Administrative Order not amended by the enclosed Modification remain in full force and effect.

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Sincerely,

A handwritten signature in dark ink, appearing to read "J. Scott Pemberton".

J. Scott Pemberton  
Senior Assistant Regional Counsel

Enclosure

cc: Sheldon Zabel, Esquire  
Schiff Hardin & Waite

Beverlee DeStein, DOJ

William McFarland, Superfund Activity  
General Motors Corporation



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

DEC 03 1992

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

Mr. Larry D. Haab  
President and CEO  
Illinois Power Company  
500 South 27th Street  
Decatur, Illinois 62525-1805

Re: Martha C. Rose Chemicals, Inc. Site  
Holden, Missouri  
Administrative Order for Remedial  
Design/Remedial Action

Dear Mr. Haab:

Enclosed is a Modification to the Administrative Order, Docket No. VII-92-F-0026. The Administrative Order was issued by Region VII of the U.S. Environmental Protection Agency (EPA) to members of the Rose Chemicals Steering Committee on September 2, 1992. The enclosed Modification amends certain portions of the September 2, 1992 Administrative Order and is issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Comprehensive and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a). All provisions of the Administrative Order not amended by the enclosed Modification remain in full force and effect.

Please note that the effective date of the Administrative Order as amended by the Modification is seventeen (17) days from the date the Modification is signed by the Regional Administrator of EPA. If you have questions regarding the enclosed Order please contact me at (913) 551-7276.

Sincerely,

J. Scott Pemberton  
Senior Assistant Regional Counsel

Enclosure

cc: Sheldon Zabel, Esquire  
Schiff Hardin & Waite

Beverlee DeStein, DOJ

Jene L. Robinson, Steering Committee Representative  
Illinois Power Company



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

DEC 03 1992

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

Mr. Wayne H. Stoppelmoor  
Chairman of the Board, President, and CEO  
Interstate Power Company  
1000 Main Street  
Dubuque, Iowa 52001

Re: Martha C. Rose Chemicals, Inc. Site  
Holden, Missouri  
Administrative Order for Remedial  
Design/Remedial Action

Dear Mr. Stoppelmoor:

Enclosed is a Modification to the Administrative Order, Docket No. VII-92-F-0026. The Administrative Order was issued by Region VII of the U.S. Environmental Protection Agency (EPA) to members of the Rose Chemicals Steering Committee on September 2, 1992. The enclosed Modification amends certain portions of the September 2, 1992 Administrative Order and is issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Comprehensive and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a). All provisions of the Administrative Order not amended by the enclosed Modification remain in full force and effect.

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Sincerely,

A handwritten signature in dark ink, appearing to read "J. Scott Pemberton".

J. Scott Pemberton  
Senior Assistant Regional Counsel

Enclosure

cc: Sheldon Zabel, Esquire  
Schiff Hardin & Waite

Beverlee DeStein, DOJ

Dale Sharp, Director of Electrical Engineering  
Interstate Power Company



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

DEC 03 1992

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

Mr. John E. Hayes, Jr.  
Chairman of the Board, President, and CEO  
Kansas Power & Light  
818 Kansas Avenue  
Topeka, Kansas 66612

Re: Martha C. Rose Chemicals, Inc. Site  
Holden, Missouri  
Administrative Order for Remedial  
Design/Remedial Action

Dear Mr. Hayes:

Enclosed is a Modification to the Administrative Order, Docket No. VII-92-F-0026. The Administrative Order was issued by Region VII of the U.S. Environmental Protection Agency (EPA) to members of the Rose Chemicals Steering Committee on September 2, 1992. The enclosed Modification amends certain portions of the September 2, 1992 Administrative Order and is issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Comprehensive and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a). All provisions of the Administrative Order not amended by the enclosed Modification remain in full force and effect.

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Sincerely,

J. Scott Pemberton  
Senior Assistant Regional Counsel

Enclosure

cc: Sheldon Zabel, Esquire  
Schiff Hardin & Waite

Beverlee DeStein, DOJ

Robert H. Fackler, P.E., Director  
Environmental Affairs & Research, Kansas Power & Light





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

DEC 03 1992

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

Mr. James M. Cain  
Chairman of the Board and CEO  
Louisiana Power & Light Company  
New Orleans Public Service, Inc.  
317 Baronne Street  
New Orleans, Louisiana 70112

Re: Martha C. Rose Chemicals, Inc. Site  
Holden, Missouri  
Administrative Order for Remedial  
Design/Remedial Action

Dear Mr. Cain:

Enclosed is a Modification to the Administrative Order, Docket No. VII-92-F-0026. The Administrative Order was issued by Region VII of the U.S. Environmental Protection Agency (EPA) to members of the Rose Chemicals Steering Committee on September 2, 1992. The enclosed Modification amends certain portions of the September 2, 1992 Administrative Order and is issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Comprehensive and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a). All provisions of the Administrative Order not amended by the enclosed Modification remain in full force and effect.

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Sincerely,

J. Scott Pemberton  
Senior Assistant Regional Counsel

Enclosure

cc: Sheldon Zabel, Esquire  
Schiff Hardin & Waite

Beverlee DeStein, DOJ

Fred Manhart, Environmental Affairs  
Louisiana Power & Light Company



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

DEC 03 1992

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

Mr. Russell E. Christiansen  
Chairman of the Board and CEO  
Midwest Power  
401 Douglas Street  
Sioux City, Iowa 51101

Re: Martha C. Rose Chemicals, Inc. Site  
Holden, Missouri  
Administrative Order for Remedial  
Design/Remedial Action

Dear Mr. Christiansen:

Enclosed is a Modification to the Administrative Order, Docket No. VII-92-F-0026. The Administrative Order was issued by Region VII of the U.S. Environmental Protection Agency (EPA) to members of the Rose Chemicals Steering Committee on September 2, 1992. The enclosed Modification amends certain portions of the September 2, 1992 Administrative Order and is issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Comprehensive and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a). All provisions of the Administrative Order not amended by the enclosed Modification remain in full force and effect.

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Sincerely,

A handwritten signature in dark ink, appearing to read "J. Scott Pemberton".

J. Scott Pemberton  
Senior Assistant Regional Counsel

Enclosure

cc: Sheldon Zabel, Esquire  
Schiff Hardin & Waite

Beverlee DeStein, DOJ

Gary E. Johnson, Senior Attorney  
Midwest Power



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

DEC 03 1992

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

Mr. Robert C. Beck  
Environmental Affairs Supervisor  
Missouri Public Service Company  
10700 East 350 Highway  
Kansas City, Missouri 64138

Re: Martha C. Rose Chemicals, Inc. Site  
Holden, Missouri  
Administrative Order for Remedial  
Design/Remedial Action

Dear Mr. Beck:

Enclosed is a Modification to the Administrative Order, Docket No. VII-92-F-0026. The Administrative Order was issued by Region VII of the U.S. Environmental Protection Agency (EPA) to members of the Rose Chemicals Steering Committee on September 2, 1992. The enclosed Modification amends certain portions of the September 2, 1992 Administrative Order and is issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Comprehensive and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a). All provisions of the Administrative Order not amended by the enclosed Modification remain in full force and effect.

Please note that the effective date of the Administrative Order as amended by the Modification is seventeen (17) days from the date the Modification is signed by the Regional Administrator of EPA. If you have questions regarding the enclosed Order please contact me at (913) 551-7276.

Sincerely,

J. Scott Pemberton  
Senior Assistant Regional Counsel

Enclosure

cc: Sheldon Zabel, Esquire  
Schiff Hardin & Waite

Beverlee DeStein, DOJ



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

DEC 03 1992

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

Mr. Robert C. Smith  
President  
New England Power Service Company  
25 Research Drive  
Westborough, Massachusetts 01581

Re: Martha C. Rose Chemicals, Inc. Site  
Holden, Missouri  
Administrative Order for Remedial  
Design/Remedial Action

Dear Mr. Smith:

Enclosed is a Modification to the Administrative Order, Docket No. VII-92-F-0026. The Administrative Order was issued by Region VII of the U.S. Environmental Protection Agency (EPA) to members of the Rose Chemicals Steering Committee on September 2, 1992. The enclosed Modification amends certain portions of the September 2, 1992 Administrative Order and is issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Comprehensive and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a). All provisions of the Administrative Order not amended by the enclosed Modification remain in full force and effect.

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Sincerely,

J. Scott Pemberton  
Senior Assistant Regional Counsel

Enclosure

cc: Sheldon Zabel, Esquire  
Schiff Hardin & Waite

Beverlee DeStein, DOJ

Andrew H. Aitken, Director of Environmental Affairs  
New England Power Service Company



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

DEC 03 1992

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

Mr. James G. Harlow, Jr.  
Chairman of the Board, President, and CEO  
Oklahoma Gas & Electric Company  
321 North Harvey  
Oklahoma City, Oklahoma 73102

Re: Martha C. Rose Chemicals, Inc. Site  
Holden, Missouri  
Administrative Order for Remedial  
Design/Remedial Action

Dear Mr. Harlow:

Enclosed is a Modification to the Administrative Order, Docket No. VII-92-F-0026. The Administrative Order was issued by Region VII of the U.S. Environmental Protection Agency (EPA) to members of the Rose Chemicals Steering Committee on September 2, 1992. The enclosed Modification amends certain portions of the September 2, 1992 Administrative Order and is issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Comprehensive and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a). All provisions of the Administrative Order not amended by the enclosed Modification remain in full force and effect.

Please note that the effective date of the Administrative Order as amended by the Modification is seventeen (17) days from the date the Modification is signed by the Regional Administrator of EPA. If you have questions regarding the enclosed Order please contact me at (913) 551-7276.

Sincerely,

J. Scott Pemberton  
Senior Assistant Regional Counsel

Enclosure

cc: Sheldon Zabel, Esquire  
Schiff Hardin & Waite

Beverlee DeStein, DOJ

Lester Burris, Supervisor of Environment Control  
Oklahoma Gas & Electric



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

DEC 03 1992

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

Mr. William L. Neal  
Manager of Environmental Affairs  
Omaha Public Power District  
444 South 16th Street Mall  
Omaha, Nebraska 68102

Re: Martha C. Rose Chemicals, Inc. Site  
Holden, Missouri  
Administrative Order for Remedial  
Design/Remedial Action

Dear Mr. Neal:

Enclosed is a Modification to the Administrative Order, Docket No. VII-92-F-0026. The Administrative Order was issued by Region VII of the U.S. Environmental Protection Agency (EPA) to members of the Rose Chemicals Steering Committee on September 2, 1992. The enclosed Modification amends certain portions of the September 2, 1992 Administrative Order and is issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Comprehensive and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a). All provisions of the Administrative Order not amended by the enclosed Modification remain in full force and effect.

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Sincerely,

A handwritten signature in dark ink, reading "J. Scott Pemberton".

J. Scott Pemberton  
Senior Assistant Regional Counsel

Enclosure

cc: Sheldon Zabel, Esquire  
Schiff Hardin & Waite

Beverlee DeStein, DOJ



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

DEC 03 1992

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

Mr. Richard H. Bremer  
President and CEO  
Southwestern Electric Power Company  
428 Travis Street  
Shreveport, Louisiana 71101

Re: Martha C. Rose Chemicals, Inc. Site  
Holden, Missouri  
Administrative Order for Remedial  
Design/Remedial Action

Dear Mr. Bremer:

Enclosed is a Modification to the Administrative Order, Docket No. VII-92-F-0026. The Administrative Order was issued by Region VII of the U.S. Environmental Protection Agency (EPA) to members of the Rose Chemicals Steering Committee on September 2, 1992. The enclosed Modification amends certain portions of the September 2, 1992 Administrative Order and is issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Comprehensive and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a). All provisions of the Administrative Order not amended by the enclosed Modification remain in full force and effect.

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Sincerely,

J. Scott Pemberton  
Senior Assistant Regional Counsel

Enclosure

cc: Sheldon Zabel, Esquire  
Schiff Hardin & Waite

Beverlee DeStein, DOJ

Jay A. Pruett, Manager of Environmental Affairs  
Southwestern Electric Power Company



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

DEC 03 1992

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

Mr. Glen D. Churchill  
President and CEO  
West Texas Utilities Company  
301 Cypress  
Abilene, Texas 79601

Re: Martha C. Rose Chemicals, Inc. Site  
Holden, Missouri  
Administrative Order for Remedial  
Design/Remedial Action

Dear Mr. Churchill:

Enclosed is a Modification to the Administrative Order, Docket No. VII-92-F-0026. The Administrative Order was issued by Region VII of the U.S. Environmental Protection Agency (EPA) to members of the Rose Chemicals Steering Committee on September 2, 1992. The enclosed Modification amends certain portions of the September 2, 1992 Administrative Order and is issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Comprehensive and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a). All provisions of the Administrative Order not amended by the enclosed Modification remain in full force and effect.

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Sincerely,

A handwritten signature in cursive script that reads "J. Scott Pemberton".

J. Scott Pemberton  
Senior Assistant Regional Counsel

Enclosure

cc: Sheldon Zabel, Esquire  
Schiff Hardin & Waite

Beverlee DeStein, DOJ

Chris Bissett, Manager, Power Plant Engineer  
West Texas Utilities Company



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region VII  
726 Minnesota Avenue  
Kansas City, Kansas 66101



IN THE MATTER OF:

MARTHA C. ROSE CHEMICALS, INC. SITE  
Holden, Missouri.

CENTRAL ILLINOIS PUBLIC SERVICE COMPANY,  
CENTRAL LOUISIANA ELECTRIC COMPANY, INC.,  
COLORADO SPRINGS DEPARTMENT OF UTILITIES,  
COMMONWEALTH EDISON COMPANY,  
GENERAL MOTORS CORPORATION,  
ILLINOIS POWER COMPANY,  
INTERSTATE POWER COMPANY,  
KANSAS POWER & LIGHT COMPANY,  
LOUISIANA POWER & LIGHT COMPANY/  
NEW ORLEANS PUBLIC SERVICE INC.,  
MIDWEST POWER, a division of  
Midwest Power Systems, Inc.,  
MISSOURI PUBLIC SERVICE COMPANY,  
NEW ENGLAND POWER SERVICE COMPANY,  
OKLAHOMA GAS & ELECTRIC COMPANY,  
OMAHA PUBLIC POWER DISTRICT,  
SOUTHWESTERN ELECTRIC POWER COMPANY,  
AND  
WEST TEXAS UTILITIES COMPANY,

Docket No.  
VII-92-F-0026

Respondents.

Proceeding Under Section 106(a) of the  
Comprehensive Environmental Response,  
Compensation, and Liability Act of 1980,  
as amended (42 U.S.C. § 9606(a))

**MODIFICATION TO THE ADMINISTRATIVE ORDER  
FOR REMEDIAL DESIGN AND REMEDIAL ACTION**

**I. INTRODUCTION AND JURISDICTION**

1. On September 2, 1992, Region VII of the U.S.

Environmental Protection Agency ("EPA") issued an Administrative

Order for Remedial Design and Remedial Action (hereinafter "Administrative Order") pursuant to Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. § 9606(a), to the above-named Respondents. That Administrative Order and this Modification to the Administrative Order (hereinafter the "Modification") require the Respondents to perform the remedial design for the remedy described in the Record of Decision, dated March 6, 1992, for the Martha C. Rose Chemicals, Inc., Site located in Holden, Missouri, and to implement the EPA-approved design by performing a remedial action.

2. As specified in Section XXV, Paragraph 84 of the Administrative Order, EPA retained the right, inter alia, to modify the Administrative Order as EPA deemed necessary.

3. This Modification is issued under the authority vested in the President of the United States by CERCLA Section 106(a), which was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12580 (52 Fed. Reg. 2926, January 29, 1987), and further delegated to the EPA Regional Administrators on September 13, 1987, by EPA Delegation No. 14-14-B.

4. On November 12, 1992, prior to issuing this Modification, EPA notified the State of Missouri, Department of Natural Resources, that EPA would be issuing this Modification.

## II. NOTICE OF INTENT TO COMPLY

5. Respondents shall provide, not later than seven (7) days after the effective date of this Modification, written notice to

EPA's Remedial Project Manager ("RPM") stating whether they will comply with the terms and provisions of the Administrative Order as amended by this Modification. If Respondents do not unequivocally commit to perform the Remedial Design and the Remedial Action as set forth in the ROD and as provided by the Administrative Order as amended by this Modification, they shall be deemed to have violated, and to have failed or refused to comply with, the Administrative Order as amended by this Modification. Respondents' written notice shall describe, using facts that exist on or prior to the effective date of this Modification, any "sufficient cause" defenses asserted by Respondents under Sections 106(b) and 107(c)(3) of CERCLA, 42 U.S.C. §§ 9606(b) and 9607(c)(3). The absence of a response by EPA to the notice required by this Paragraph shall not be deemed to be acceptance of Respondents' assertions.

### III. MODIFICATIONS

The following findings, provisions and requirements of the Administrative Order are hereby modified.

6. Section III [Findings of Fact], Paragraph 17 is hereby modified to:

"The primary populations presently at risk and those who may be at risk in the future are residents and users of the Site. The carcinogenic risk ranges from  $2.2 \times 10^{-8}$  to  $1.3 \times 10^{-4}$  while the non-carcinogenic MDD/RFD ratios range from  $2.4 \times 10^{-4}$  to 8.8."

7. Section IX [Work to be Performed], Paragraph 35.A is hereby modified to:

"Within thirty (30) days of receipt of EPA's authorization to proceed issued pursuant to Paragraph 33 or 34, Respondents shall submit a work plan for the design of the Remedial Action at the Site ("Remedial Design Work Plan" or "RD Work Plan") to EPA for review and approval in accordance with Section XIV [EPA Review of Submissions] of this Order. The RD Work Plan shall include a step-by-step plan for completing the Remedial Design for the remedy set forth in the ROD in accordance with the SOW and for attaining and maintaining all requirements, including Performance Standards, identified in the ROD and the SOW. The RD Work Plan shall include plans and schedules for implementation of all Remedial Design and pre-design tasks identified in the SOW including, but not limited to, plans and schedules for completion of: (1) a Preliminary Design submittal; (2) a Pre-final Design submittal; (3) a Final Design submittal; (4) a Design Sampling and Analysis Plan (including, but not limited to, a Remedial Design Quality Assurance Project Plan (RD QAPP) developed in accordance with Section XVI [Quality Assurance, Sampling and Data Analysis] of this Order); (5) an Operation and Maintenance Plan; (6) a Contingency Plan; (7) a Construction Quality Assurance Project Plan (CQAPP); (8) pilot study/treatability studies; (9) a Monitoring Well Installation/Abandonment Plan; (10) a Sub-surface Soil Contamination Excavation Plan; (11) a Cross-contamination/Recontamination Prevention Plan; (12) a Post-excavation Verification Plan; and (13) a plan for gathering additional data or information necessary to meet the requirements

of this Order. Respondents shall also, within thirty (30) days of receipt of EPA's authorization to proceed pursuant to Paragraph 33 or 34, prepare and submit to EPA for review, a Site Health and Safety Plan for field design activities. The Site Health and Safety Plan shall conform to the applicable Occupational Safety and Health Administration and EPA requirements including, but not limited to, 29 C.F.R. § 1910.120."

8. Section IX [Work to be Performed], Paragraph 35.D is modified to:

"Within sixty (60) days of receipt of EPA's written approval of the RD Work Plan, Respondents shall submit a Preliminary Design to EPA for review and approval pursuant to Section XIV [EPA Review of Submissions] of this Order. The Preliminary Design submittal shall include, at a minimum, the following: (1) design criteria; (2) results of any pilot study or treatability study; (3) results of additional field sampling and pre-design Work; (4) project delivery strategy; (5) preliminary plans, drawings and sketches; (6) required specifications in outline form; (7) the identification and evaluation of any value engineering proposals; and (8) Construction Quality Assurance Project Plan ("CQAPP") objectives.

9. Section IX [Work to be Performed], Paragraph 35.E is modified by deleting the entire Paragraph 35.E regarding performance of an Intermediate Design.

10. Section IX [Work to be Performed], Paragraph 35.F is modified to:

"Within sixty (60) days of receipt of EPA's written approval of Respondents' Preliminary Design, Respondents shall submit a Pre-final Design submittal to EPA for review and approval pursuant to Section XIV [EPA Review of Submissions] of this Order. The Pre-final Design submittal shall include, at a minimum, the following: (1) design plans and specifications; (2) Operation and Maintenance Plan; (3) RD/RA cost estimate, including capital and operation and maintenance costs; (4) initial project schedule for the RA; (5) a CQAPP; (6) a Contingency Plan; (7) specifications for the Health and Safety Plan; and (8) method for selection of the RA contractor. The CQAPP shall detail the approach to quality assurance during construction activities at the Site and shall specify a quality assurance team, independent of the construction contractor, to conduct a quality assurance program during the construction phase of the project."

11. Section IX [Work to be Performed], Paragraph 35.G is modified to:

"Within thirty (30) days of receipt of EPA's written approval of the Pre-final Design submittal, Respondents shall submit a Final Design submittal to EPA for review and approval pursuant to Section XIV [EPA Review of Submissions] of this Order. The Final Design submittal shall include, at a minimum, the following: (1) final design plans and specifications; (2) final Operation and Maintenance Plan; (3) final RD/RA cost estimate, including capital and operation and maintenance costs;

(4) final project schedule for the implementation of the Remedial Action; (5) final CQAPP; (6) final Contingency Plan; (7) final Health and Safety Plan specifications; (8) method for selection of the RA contractor; and (9) preliminary Field Sampling Plan (directed at measuring progress towards meeting Performance Standards)."

12. Section IX [Work to be Performed], Paragraphs 36.A through 36.E are modified to:

"A. If Respondents seek to retain a construction contractor to assist in the performance of the Remedial Action, Respondents shall initiate the selection process by publishing the contractor solicitation documents within five (5) days of Respondents' receipt of EPA's written approval of the Final Design, and shall submit a copy of the contractor solicitation documents to EPA not later than five (5) days after publication of the solicitation documents. The contractor solicitation period shall not exceed thirty (30) days in length.

B. Within ten (10) days of the closing of the contractor solicitation period, Respondents shall notify EPA in writing of the name, title and qualifications of any construction contractor considered to be used in implementing the Remedial Action under this Order. EPA will issue a written notice of disapproval or an authorization to proceed with respect to each contractor identified by Respondents. In the event EPA disapproves of all construction contractors identified by Respondents, Respondents shall submit to EPA, within thirty (30) days of receipt of such a

notice of disapproval, a list of construction contractors, including the qualifications of each contractor, that are acceptable to them. EPA will thereafter provide written notice of the name(s) of any contractors that it disapproves and an authorization to proceed with respect to any of the other contractors. Respondents may select any contractor from that list that is not disapproved and shall notify EPA of the name of the contractor selected within twenty one (21) days of receipt of EPA's authorization to proceed. If at any time thereafter Respondents propose to change the construction contractor, Respondents shall provide written notice to EPA and shall obtain approval from EPA as provided in this Paragraph, before the new construction contractor performs, directs or supervises any Work under this Order.

C. Within forty-five (45) days of receipt of EPA's authorization to proceed issued pursuant to Paragraph 36.B, Respondents shall submit a Remedial Action Work Plan ("RA Work Plan") for the performance of the Remedial Action at the Site to EPA for review and approval pursuant to Section XIV [EPA Review of Submissions] of this Order. The RA Work Plan shall provide for the construction of the remedy in accordance with the ROD and the SOW, as set forth in the design plans and specifications in the approved Final Design submittal. The RA Work Plan shall include, at a minimum, the following: (1) the schedule for completion of the Remedial Action; (2) schedule for developing and submitting other required Remedial Action plans, if any;



(3) methodology for implementation of the CQAPP; (4) a Ground Water Monitoring Plan; (5) methods for identifying and satisfying permitting requirements; (6) methodology for implementation of the Operation and Maintenance Plan; (7) methodology for implementation of the Contingency Plan; (8) tentative formulation of the Remedial Action Project Team; (9) schedule for completion of the Construction Quality Control Plan (by constructor); (10) schedule for completion of the Construction Contingency Plan; (11) procedures and plans for the decontamination of equipment and the disposal of contaminated materials; and (12) procedures for data collection during the RA and schedule for development and submission of a Performance Standards Assessment Plan. The RA Work Plan shall also include a schedule for implementing all Remedial Action tasks identified in the Statement of Work. Within forty-five (45) days of receipt of EPA's authorization to proceed issued pursuant to Paragraph 36.B, Respondents shall also submit to EPA for review a Health and Safety Plan for field activities required by the RA Work Plan. This Health and Safety Plan for field activities shall conform to applicable Occupational Safety and Health Administration and EPA requirements including, but not limited to, the regulations at 29 C.F.R. § 1910.120.

D. Upon approval by EPA, the RA Work Plan is incorporated into this Order as a requirement of this Order and shall be an enforceable part of this Order. Unless otherwise directed by EPA, Respondents shall not commence physical on-Site Remedial

Action activities at the Site prior to approval of the RA Work Plan.

E. Within thirty (30) days of receipt of EPA's approval of the RA Work Plan, Construction Quality Control Plan, Construction Contingency Plan, whichever is later in time, Respondents shall implement the RA Work Plan in accordance with the schedules contained therein."

13. Section XXVI [Effective Date and Computation of Time], Paragraph 89 is modified to:

"The Administrative Order as amended by this Modification shall be effective seventeen (17) calendar days from the date this Modification is signed by the Regional Administrator. All times for performance of ordered activities shall be calculated from this effective date."

14. The Statement of Work (Attachment 2 to the Administrative Order), Section II.4.B, Subparagraph 2 is modified to:

"EPA has determined that the PCB-contaminated insulation and certain portions of the PCB-contaminated concrete floor slabs and footings represent a principal threat at this Site, and therefore shall be treated. The portions and/or areas of the concrete floor slabs and footings that require treatment prior to disposal shall be identified by EPA during the development of the Remedial Design by Respondents, following any additional sampling and analysis that will be conducted by the Respondents to determine the extent of PCB contamination."

15. The Statement of Work (Attachment 2 to the Administrative Order), Section III and the Submission Summary is hereby modified as set forth in Appendix A to this Modification.

16. All other provisions, findings of fact, conclusions of law, and other requirements of the Administrative Order remain in full force and effect.

#### IV. OPPORTUNITY TO CONFER


17. Respondents may, within ten (10) days after the date this Modification is signed, request a conference with EPA to discuss this Modification. If requested, the conference shall occur within seventeen (17) days of the date this Modification is signed, at EPA's offices at 726 Minnesota Avenue, Kansas City, Kansas.


18. The purpose and scope of this conference shall be limited to issues relating to the implementation of the response actions required by the Administrative Order as amended by this Modification, and the extent to which the Respondents intend to comply with the Administrative Order as amended by this Modification. This conference is not an evidentiary hearing, and does not constitute a proceeding to challenge the Administrative Order or this Modification. It does not give Respondents a right to seek review of the Administrative Order or this Modification, or to seek resolution of potential liability, and no stenographic record of the conference will be made. At any conference held pursuant to Respondents' request, Respondents may appear in person or by an attorney or other representative.

19. Requests for a conference must be made by telephone followed by written confirmation mailed that day to:

J. Scott Pemberton  
Office of Regional Counsel  
U.S. Environmental Protection Agency  
Region VII  
726 Minnesota Avenue  
Kansas City, Kansas 66101  
Telephone: (913) 551-7276

SO ORDERED this 30 day of November, 1992

By   
Morris Kay  
Regional Administrator  
U.S. Environmental Protection Agency

  
J. Scott Pemberton  
Senior Assistant Regional Counsel  
U.S. Environmental Protection Agency

### CERTIFICATION OF SERVICE

I hereby certify that the original copy of this Modification to the Administrative Order was hand-delivered to the Regional Hearing Clerk, Office of Regional Counsel, United States Environmental Protection Agency, Region VII, 726 Minnesota Avenue, Kansas City, Kansas 66101; a true and correct copy was sent by certified mail, return receipt requested to: Mr. Clifford Greenwalt, President and CEO, Central Illinois Public Service, 607 East Adams Street, Springfield, Illinois 62739; Mr. Scott O. Brame, President and CEO, Central Louisiana Electric Co., Inc., 2030 Donahue Ferry Road, Pineville, Louisiana 71361; Mr. J. Martin Thrasher, Director, Environmental Services, Colorado Springs Department of Utilities, 102 South Weber, Colorado Springs, Colorado 80903; Mr. Bide L. Thomas, President, Commonwealth Edison Company, 1 First National Plaza, Chicago, Illinois 60603; Mr. Robert C. Stempel, Chairman of the Board and CEO, General Motors Corporation, 30400 Mound Road, Warren, Michigan 48090-9015; Mr. Larry D. Haab, President and CEO, Illinois Power Company, 500 South 27th Street, Decatur, Illinois 62525-1805; Mr. Wayne H. Stoppelmoor, Chairman of the Board, President, and CEO, Interstate Power Company, 1000 Main Street, Dubuque, Iowa 52001; Mr. John E. Hayes, Jr., Chairman of the Board, President, and CEO, Kansas Power & Light, 818 Kansas Avenue, Topeka, Kansas 66612; Mr. James M. Cain, Chairman of the Board and CEO, Louisiana Power & Light Company/New Orleans Public Service, Inc., 317 Baronne Street, New Orleans, Louisiana 70112; Mr. Russell E. Christiansen, Chairman of the Board and CEO, Midwest Power, 401 Douglas Street, Sioux City, Iowa 51101; Mr. Robert C. Beck, Environmental Affairs Supervisor, Missouri Public Service Company, 10700 East 350 Highway, Kansas City, Missouri 64138; Mr. Robert C. Smith, President, New England Power Service Company, 25 Research Drive, Westborough, Massachusetts 01581; Mr. James G. Harlow, Jr., Chairman of the Board, President, and CEO, Oklahoma Gas & Electric Company, 321 North Harvey, Oklahoma City, Oklahoma 73102; Mr. William L. Neal, Manager of Environmental Affairs, Omaha Public Power District, 444 South 16th Street Mall, Omaha, Nebraska 68102; Mr. Richard H. Bremer, President and CEO, Southwestern Electric Power Company, 428 Travis Street, Shreveport, Louisiana 71101; Mr. Glen D. Churchill, President and CEO, West Texas Utilities Company, 301 Cypress, Abilene, Texas 79601, on the 3<sup>rd</sup> day of December, 1992.

  
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J. Scott Pemberton

## **APPENDIX A**

### **III. SCOPE**

The RD/RA shall consist of seven tasks for implementation of the Remedial Action described in Section II of this SOW:

**TASK I:** Pilot Study Work Plan for any alternatives considered in lieu of incineration, including:

- A. Technical Requirements
- B. Schedule(s)
- C. Quality Assurance Project Plan
- D. Sampling and Analysis Plan
- E. Health and Safety Plan

**TASK II:** Pilot Study:

- A. Performance Standards Development
- B. Pilot Study Implementation
- C. Pilot Study Report

**TASK III:** Remedial Design Work Plan, including plans and schedules for completion of:<sup>1</sup>

- A. Design Phases
- B. Design Sampling and Analysis Plan, with RD Quality Assurance Project Plan
- C. Contingency Plan
- D. Construction Quality Assurance Project Plan
- E. Monitoring Well Installation/Abandonment Plan
- F. Sub-surface Soil Contamination Excavation Plan
- G. Cross-contamination/Recontamination Prevention Plan
- H. A Post-excavation Verification Plan
- I. Other Necessary Elements

**TASK IV:** Remedial Design, including:

- A. Design Plans and Specifications
- B. Design Phases with Required Elements

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<sup>1</sup> This and succeeding tasks shall include onsite treatment of soils and debris if EPA approves such treatment as a result of its review of the Pilot Study Report. Upon EPA's approval, Respondents shall submit a Supplemental RD Work Plan, and supplement any other required submission, to address the full scale alternative treatment system.

- C. Operation and Maintenance Plan
- D. RD/RA Cost Estimate
- E. Project Schedule
- F. Construction Quality Assurance Project Objectives and Plan
- G. Other Necessary Elements

**TASK V:** Remedial Action Work Plan(s), including:

- A. Schedules
- B. Methodologies for Implementation of Plans
- C. Ground Water Monitoring Plan
- D. Methods for Identifying and Satisfying Permitting Requirements
- E. RA Project Team
- F. Decontamination, Disposal and Data Collection Procedures and Plans
- G. Other Necessary Elements

**TASK VI:** Remedial Action Construction, including:

- A. Construction Quality Control Plan
- B. Construction Contingency Plan

**TASK VII:** Reports:

- A. Progress Reports
- B. Draft Submittals
- C. Final Submittals

#### **TASK I: Pilot Study Work Plan**

The Respondents may submit a Pilot Study Work Plan to EPA for review and approval which shall outline the procedures for performing the Pilot Study for any treatment technologies proposed to either replace incineration or to reduce the level of contamination in soil or debris which requires treatment under the ROD to allow disposal of the material in a TSCA chemical waste landfill. The Pilot Study Work Plan shall also include a description of qualifications of key personnel directing the Pilot Study, including contractor personnel. If no alternative treatment to incineration is pursued by the Respondents, Tasks I and II are unnecessary.

The Pilot Study Work Plan shall follow the following format:

1. Project Description and Site Background;
2. Remedial Technology Description;
3. Pilot Study Objectives;
4. Pilot Installation and Start-up;
5. Pilot Operation and Maintenance;

6. Parameters to be Tested;
7. Sampling and Analysis Plan;
8. Analytical Methods;
9. Data Management;
10. Data Analysis and Interpretation;
11. Health and Safety;
12. Residuals Management; and
13. Schedule.

o Pilot Installation and Start-up - describe the equipment and materials required and method to be employed to deliver and install the equipment and materials onsite.

o Pilot Operation and Maintenance Procedures - describe the specific conditions under which the Pilot Study will be conducted.

o Parameters to be Tested - list the operating conditions under which the pilot unit(s) to be tested and the variations in control parameters that are to be evaluated (Pilot Study Performance Standards).

o Sampling Plan - describe the location and the schedule for samples to be taken from the pilot plant and analyzed to determine performance; and sampling methods, containers, preservatives, labeling, etc.

o Health and Safety Plan - describe how equipment and material, design, use, and set-up complies with all applicable Federal, state, and local requirements.

#### **TASK II: Pilot Study**

Respondents shall perform any Pilot Study as outlined in Section II.4 of this SOW and in accordance with the approved Pilot Study Work Plan, if a treatment alternative to incineration is sought.

Upon completion of the Pilot Study, all results are to be collected and tabulated. Data shall be interpreted by Respondents as to the treatment alternative's effectiveness, implementability, cost and anticipated results of full-scale implementation compared with actual results. Treatment rates shall be evaluated to predict the ability of a full-scale unit to meet engineering specifications and Performance Standards.

Upon completion of the Pilot Study, Respondents shall prepare and submit to EPA for review and approval a draft and final Pilot Study Report in accordance with the Submission Summary. Performance Standards for the full scale treatment system shall be proposed and included in the Pilot Study Report.



### **TASK III: Remedial Design Work Plan(s)**

The Respondents shall submit a Remedial Design (RD) Work Plan for performance of the Remedial Action to EPA for review and approval. The RD Work Plan shall include plans and schedules for implementation of all Remedial Design and pre-design tasks identified in this SOW for the Remedial Action described in Section II herein including, but not limited to:

1. Design Sampling and Analysis Plan, including a RD Quality Assurance Project Plan;

2. Preliminary Design submittal, including design criteria, results of the Pilot Study or any treatability study, results of additional field sampling and pre-design Work, project delivery strategy, preliminary plans, drawings and sketches, required specifications in outline form, the identification and evaluation of any value engineering proposals, and Construction Quality Assurance Project Plan (CQAPP) objectives;

3. DELETED

4. Pre-final Design submittal consisting of the design plans and specifications (95% complete), Operation and Maintenance Plan, RD/RA cost estimate (including capital and operation and maintenance costs), initial project schedule for the RA, CQAPP, Contingency Plan, specifications for the Health and Safety Plan, and method for selecting the RA contractor;

5. Final Design submittal consisting of final design plans and specifications (100% complete), final Operation and Maintenance Plan, final RD/RA cost estimate (including capital and operation and maintenance costs), final project schedule for the RA, final CQAPP, final Contingency Plan, final specifications for the Health and Safety Plan, method for selecting the RA contractor, and preliminary Field Sampling Plan (directed at measuring progress towards meeting the Performance Standards);

6. the following described plans, which shall initially be submitted as part of the Preliminary Design, and subsequently as part of the Pre-final and Final Design submittals:

- A. Monitoring Well Installation/Abandonment Plan, which shall outline the procedures for installation of additional ground water monitoring wells and abandonment of any monitoring wells not to be included in the monitoring network. Abandonment procedures shall be carried out in accordance with state and Federal

regulations. The Work Plan shall include the number, locations, and procedures for the installation of the additional monitoring wells. A schedule for the performance of these activities shall be included;

B. Sub-surface Soil Contamination Excavation Plan, which shall address the details for determining the extent and level of contamination of sub-surface soils beneath buildings and along sewer lines. Specific rationale and procedures for determining the extent and manner of excavation and disposal of the sub-surface soils shall be included as well as post-excavation sampling and analysis verification procedures;

C. Cross-Contamination/Recontamination Prevention Plan, which shall specifically address the methods and procedures to be employed to prevent the cross-contamination or recontamination of the entire area; and

D. Post-Excavation Verification Plan, which shall verify that Performance Standards have been achieved.

In addition, the RD Work Plan shall include a schedule for completion of the Remedial Action Work Plan.

A Health and Safety Plan for all field design activities shall be submitted concurrently with the RD Work Plan.

If a treatment alternative to incineration is approved by EPA as a result of its review of the Final Pilot Study Report, the RD Work Plan shall specifically address the design of the full scale alternative treatment system and any additional studies that may need to be performed. The RD Work Plan shall also include all the elements identified above, unless otherwise noted, and shall include the Pilot Study(s) results and Performance Standards to be met for the full scale alternative treatment system.

#### **TASK IV: Remedial Design**

The Respondents shall prepare final construction plans and specifications to implement each segment of the Remedial Action at the Site as defined in Section II of this SOW (Description of the Remedial Action).

If a treatment alternative to incineration is approved by EPA, Respondents shall prepare final construction plans and specifications for the implementation of a full scale alternative treatment system in accordance with the Submission Summary.

## **A. Design Plans and Specifications**

The Respondents shall develop clear and comprehensive design plans and specifications including, but not limited to, the following listed elements.

1. Discussion of the design strategy and the design based on, at a minimum:
  - a. compliance with all applicable or relevant and appropriate environmental and public health standards; and
  - b. minimization of adverse environmental and public impacts.
2. Discussion of all technical factors of importance, including:
  - a. use of currently accepted environmental control measures and technology;
  - b. the constructability of the design; and
  - c. use of currently acceptable construction practices and techniques.
3. Description of assumptions made and detailed justification of these assumptions.
4. Discussion of the potential sources of error and references to potential operation and maintenance problems.
5. Detailed drawings of the proposed design, including:
  - a. qualitative flow sheets; and
  - b. quantitative flow sheets.
6. Tables listing equipment and specifications.
7. Tables giving material and energy balances.
8. Appendices, including:
  - a. sample calculations (one example presented and explained clearly for significant or unique design calculations);
  - b. derivations of equations essential to understanding the submittal; and
  - c. results of laboratory or field tests.

## **B. Design Phases**

Meetings shall occur as needed or when requested by either Party between the Respondents and the U.S. EPA to discuss design issues. The design of the Remedial Action shall include the phases outlined below.

### **1. Preliminary Design.**

Respondents shall submit the Preliminary Design when the design effort is approximately 60% complete. The Preliminary Design shall include at a minimum the design criteria, results of the Pilot Study or any treatability study, results of additional field sampling and pre-design Work, project delivery strategy, preliminary plans, drawings, and sketches, the required specifications in outline form, the identification and evaluation of any value engineering proposals, and CQAPP objectives.

At this stage, the Respondents shall have field verified the existing conditions of the Site. The Preliminary Design shall reflect a level of effort such that the technical requirements of the project have been addressed and outlined so that they may be reviewed to determine if the Final Design will provide an operable and usable Remedial Action. Supporting data and documentation shall be provided with the Preliminary Design documents defining the functional aspects of the program. Design documents to be submitted at this stage include the initial Monitoring Well Installation/Abandonment Plan, Sub-surface Soil Contamination Excavation Plan, Cross-contamination/Recontamination Prevention Plan, and Post-excavation Verification Plan. The preliminary construction drawings by the Respondents shall reflect organization and clarity. The scope of the technical specifications shall be outlined in a manner reflecting the final specifications. The Preliminary Design submission shall contain design calculations reflecting the same percentage of completion as the designs they support.

### **2. Correlating plans and specifications.**

General correlation between drawings and technical specifications shall be a basic requirement of any set of working construction plans and specifications. Before submitting project specifications, Respondents shall:

- a. coordinate and cross-check the specifications and drawings; and
- b. complete the proofing of the edited specifications and required cross-checking of all drawings and specifications.

These activities shall be completed prior to submittal of the 95% Pre-final Design submittal for review and approval.

### 3. Equipment start-up and operator training.

The Respondent shall prepare, and include in the technical specifications governing any proposed treatment systems, contractor requirements for providing: 1) appropriate service visits by experienced personnel to supervise the installation, adjustment, start-up and operation of any treatment systems; and 2) training covering appropriate operational procedures once the start-up has been successfully accomplished.

### 4. Additional studies.

If EPA determines that additional studies to supplement the available technical data are required in order to perform the work described in the ROD, EPA shall notify Respondents in writing of the need for such additional studies. If such studies are required, the Respondents shall furnish all services (including field work as required), materials, supplies, plant, labor, equipment, investigations, studies and superintendence. Sufficient sampling, testing and analysis shall be performed to optimize the required treatment and/or disposal operations and systems. Within sixty (60) days of receipt of EPA's determination, Respondents shall submit a work plan addressing the additional studies specified by EPA for review and approval.

### 5. Pre-final Design.

Respondents shall submit the Pre-final Design at 95% completion of design.

The Pre-final Design submittal shall consist of the design plans and specifications, an Operation and Maintenance Plan, RD/RA cost estimate (including capital and operation and maintenance costs), initial project schedule for the RA, a CQAPP, a Contingency Plan, specifications for the Health and Safety Plan, and the method for selecting the RA contractor.

The members of the Independent Quality Assurance Team shall be representatives from independent testing and inspection organizations responsible for examining and testing various materials, procedures, and equipment during the construction. Since the Respondents are responsible for the quality of the remedy, the Independent Quality Assurance Team shall be retained by the Respondents.

## 6. Final Design.

After approval of the Pre-final Design submittal, the Respondents shall execute the required revisions and submit the 100% complete Final Design documents with reproducible drawings and specifications for the Remedial Design.

The Final Design submittal shall consist of the final design plans and specifications (100% complete), the final Operation and Maintenance Plan, final RD/RA cost estimate, final project schedule for the RA, final CQAPP, final Contingency Plan, final Health and Safety Plan specifications, method for selecting RA contractor, and preliminary Field Sampling Plan (directed at measuring progress towards meeting the Performance Standards). The quality of the design documents should be such that the Respondents would be able to include them in a bid package and invite contractors to submit bids for the construction project.

### C. Operation and Maintenance Plan

The Respondents shall prepare an Operation and Maintenance Plan to cover both implementation and long-term maintenance of the Remedial Action, specifically the ten (10) year ground water monitoring program. The plan shall be composed of the following elements.

1. Description of normal Operation and Maintenance (O&M), including:

- a. description of tasks for operation;
- b. description of tasks for maintenance;
- c. description of prescribed treatment or operation conditions; and
- d. schedule showing frequency of each O&M task.

2. Description of potential operating problems, including:

- a. description and analysis of potential operation problems;
- b. sources of information regarding problems; and
- c. common and/or anticipated remedies.

3. Description of routine monitoring and laboratory testing, including:

- a. description of monitoring tasks;
- b. description of required laboratory tests and their interpretation;
- c. required data collection, Quality Assurance Project Plan (QAPP);
- d. schedule of monitoring frequency and date, if appropriate, when monitoring may cease; and
- e. description of triggering mechanisms for ground water monitoring results.

4. Description of alternate O&M, including:

- a. alternate procedures, should systems fail, to prevent release or threatened releases of hazardous substances, pollutants or contaminants which may endanger public health and the environment or exceed Performance Standards; and
- b. analysis of vulnerability and additional resource requirements should a failure occur.

5. Response actions, including:

- a. description of response actions to be implemented if an event described in Section II.5 of this SOW occurs; and
- b. schedule for implementing these response actions.

6. Safety plan, including:

- a. description of precautions and necessary equipment, etc., for Site personnel; and
- b. safety tasks required in event of systems failure.

7. Description of equipment, including:

- a. equipment identification;
- b. installation and monitoring components;
- c. maintenance of site equipment; and
- d. replacement schedule for equipment and installed components.

8. Records and reporting mechanisms required, including:

- a. daily operating logs;
- b. laboratory records;
- c. records for operating costs;
- d. mechanism for reporting emergencies;
- e. personnel and maintenance records; and
- f. monthly/annual reports to State agencies.

D. RD/RA Cost Estimate

The cost estimate developed in the Feasibility Study (FS) and set forth in the ROD shall be refined to reflect the more detailed/accurate design plans and specifications developed. The cost estimate shall include both capital and Operation and Maintenance costs. An initial cost estimate shall be submitted simultaneously with the Pre-final Design submission and the final cost estimate with the Final Design submission.

E. Project Schedule

The Respondents shall develop a Project Schedule for construction and implementation of each segment of the Remedial Action which identifies timing for initiation and completion of all critical path tasks. Respondents shall specifically identify dates for completion of the project and major interim milestones. An initial project schedule shall be submitted simultaneously with the Pre-final Design Document submission and the final project schedule with the Final Design submission.

F. Construction Quality Assurance Project Objectives and Plan

The Respondents shall identify and document the objectives and framework for the development of a construction quality assurance program including, but not limited to, the following: responsibility and authority, personnel qualifications, inspection activities, sampling requirements, and documentation. The CQAPP objectives shall be identified in the Preliminary Design submittal. The initial CQAPP shall be submitted as part of the Pre-final Design submittal and the final CQAPP shall be submitted as part of the Final Design submittal.

Respondents shall develop and implement the CQAPP to ensure, with a reasonable degree of certainty, that a completed Remedial Action will meet or exceed all design criteria, plans and specifications, and Performance Standards. The CQAPP is a site



specific document which must be submitted to EPA for approval during the Remedial Design prior to the start of the construction for the relevant activities. If an alternative treatment to incineration is approved by EPA, the CQAPP shall incorporate requirements specific to such alternative treatment. At a minimum, the CQAPP should include the elements which are summarized below.

1. Responsibility and Authority.

The responsibility and authority of all organizations (i.e. technical consultants, construction firms, etc.) and key personnel involved in the construction of the Remedial Action shall be described fully in the CQAPP. The Respondents shall identify a construction quality assurance officer and the necessary supporting inspection staff.

2. Construction Quality Assurance Personnel Qualifications.

The qualifications of the construction quality assurance officer and supporting inspection personnel shall be presented in the CQAPP to demonstrate that they possess the training and experience necessary to fulfill their identified responsibilities.

3. Inspection Activities.

The observations and tests that will be used to monitor the construction and/or installation of the components of the Remedial Action shall be summarized in the CQAPP. The plan shall verify compliance with the applicable environmental requirements which may include, but not be limited to, air quality and emissions monitoring records and waste disposal records (e.g., RCRA transportation manifests), etc. The inspection shall also ensure compliance with all health and safety procedures. In addition to oversight inspections, Respondents shall conduct the following activities.

a. Preconstruction inspection and meeting.

The Respondents shall conduct a preconstruction inspection and meeting to:

- i. review methods for documenting and reporting inspection data;
- ii. review methods for distributing and storing documents and reports;
- iii. review work area security and safety protocol;

iv. discuss any appropriate modifications of the CQAPP ensure that Site-specific considerations are addressed; and

v. conduct a Site walk-around to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations.

The preconstruction inspection and meeting shall be documented by a designated person and a copy of the minutes of such a meeting shall be transmitted to EPA.

b. Pre-final inspection.

Upon preliminary project completion, Respondents shall notify the U.S. EPA for the purposes of conducting a pre-final inspection. The pre-final inspection shall consist of a walk-through inspection of the entire project Site. The inspection is to determine whether the project is complete and consistent with the contract documents and the approved Remedial Action. Any outstanding construction items discovered during the inspection shall be identified and noted. Additionally, monitoring equipment shall be operationally tested by Respondents. The Respondents shall certify that the equipment has performed to meet the purpose and intent of the specifications. Retesting will be completed where deficiencies are revealed. The Respondents shall prepare and submit a Pre-final Inspection Report which outlines the outstanding construction items, actions required to resolve items, completion date for these items, and date for final inspection.

c. Final Inspection.

Upon completion of any outstanding construction items, Respondents shall notify the U.S. EPA for the purposes of conducting a final inspection. The final inspection shall consist of a walk-through inspection of the project Site. The Pre-final Inspection Report will be used as a checklist with the final inspection focusing on the outstanding construction items identified in the pre-final inspection. Confirmation shall be made that outstanding items have been resolved.

Upon satisfactory completion of the final inspection, a Remedial Action Implementation Report will be prepared by Respondents and submitted to EPA for review and approval.

The Report shall document that the project is consistent with the design specifications, and that Remedial Action is performing adequately. The Report shall include, but is not limited to, the following elements:

- i. synopsis of the Remedial Action and certification of the design and construction;
- ii. explanation of any modifications to the plans and why these were necessary for the project;
- iii. listing of the criteria, established before the Remedial Action was initiated, for judging the functioning of the Remedial Action, and also explaining any modification to these criteria;
- iv. results of Site monitoring, indicating that the Remedial Action will meet or exceed the Performance Standards; and
- v. explanation of the operation and maintenance (including monitoring) to be undertaken at the facility as outlined in Task IV.C.

#### 4. Sampling Requirements.

The sampling activities, sample size, sample locations, frequency of testing, acceptance and rejection criteria, and plans for correcting problems as addressed in the project specifications shall be presented in the CQAPP.

#### 5. Documentation.

Reporting requirements for construction quality assurance activities shall be described in detail in the CQAPP. This shall include such items as daily summary reports, inspection data sheets, problem identification and corrective measures reports, design acceptance reports, and final documentation. Provisions for the final storage of all records shall be presented in the CQAPP.

In accordance with the Submission Summary, Respondents shall begin construction and implementation of the Remedial Action in accordance with the approved design, schedule and CQAPP. The Respondents shall also implement the elements of the approved Operation and Maintenance Plan.

### TASK V: Remedial Action Work Plan(s)

The Respondents shall submit to EPA a Remedial Action (RA) Work Plan for review and approval which shall provide for the

implementation of the remedy set forth in the ROD. The RA Work Plan shall include, but is not limited to:

1. schedule for completion of the Remedial Action and the process to continuously update the project schedule;
2. schedule for development and submitting other required RA Plans, if any;
3. methodology for implementation of the CQAPP;
4. Ground Water Monitoring Plan;
5. methods for identifying and satisfying permitting requirements;
6. methodology for implementation of the Operation and Maintenance Plan;
7. methodology for implementation of the Contingency Plan;
8. tentative formulation of the RA Project Team, including key personnel, description of duties, and lines of authority in the management of the construction activities;
9. schedule for completion of Construction Quality Control Plan (by constructor);
10. schedule for completion of Construction Contingency Plan;
11. procedures and plans for the decontamination of equipment and the disposal of contaminated materials;
12. procedures for data collection during the Remedial Action to validate the completion of the project; and
13. schedule for development and submission of a Performance Standards Assessment Plan.

A Health and Safety Plan for all Remedial Action field activities shall be submitted concurrently with the RA Work Plan.

If a treatment alternative to incineration is approved by EPA, the RA Work Plan shall include such treatment and shall provide for the implementation of the full scale alternative treatment system. The RA Work Plan shall include all the elements identified for the Remedial Action Work Plan for the treatment alternative unless otherwise noted.

#### **TASK VI: Remedial Action Construction**

Respondents shall submit to EPA for review and approval, a Construction Quality Control Plan prepared in accordance with current EPA guidance and the Submission Summary. This Construction Quality Control Plan shall address the full scale alternative treatment system if approved by EPA.

Respondents shall submit to EPA for review and approval, a Construction Contingency Plan which includes the requirements of OSWER Directive 9355.5-01, and is submitted in accordance with the Submission Summary. This Contingency Plan shall address the full scale alternative treatment system if approved by EPA.

#### **TASK VII: Reports**

The Respondents shall prepare plans, specifications, and reports as set forth in Tasks I through VI to document the design, construction, operation, maintenance, and monitoring of the Remedial Action. The documentation shall include, but is not limited to, the following:

##### **A. Progress Reports.**

The Respondents shall, at a minimum, provide the U.S. EPA with signed monthly progress reports during the design and construction phases and operation and maintenance activities containing:

1. a description and estimate of the percentage of the RD/RA completed;
2. summaries of findings;
3. summaries of changes made in the RD/RA during the reporting period;
4. summaries of contacts with representatives of the local community, public interest groups or State government during the reporting period;
5. summaries of problems encountered or potential problems identified during the reporting period;
6. actions taken or to be taken to rectify problems;
7. changes in personnel during the reporting period;
8. projected work for the next reporting period; and

9. copies of daily reports, inspection reports,  
laboratory/monitoring data, etc.

B. Draft Submittals.

Respondents shall submit to EPA draft reports/submittals in accordance with the schedules specified in the Submission Summary, herein.

C. Final Submittals.

The Respondents shall finalize all reports/submittals incorporating comments received on draft submissions in accordance with the schedules specified in the Submission Summary, herein.

## SUBMISSION SUMMARY

| <u>Submission</u>  | <u>Due Date</u>   |
|--|---|
| Draft RD Work Plan<br>(Task III)   | within thirty (30) days<br>of receipt of EPA's<br>authorization to proceed        |
| Health and Safety Plan for<br>RD field activities<br>(Task III)  | within thirty (30) days<br>of receipt of EPA's<br>authorization to proceed        |
| Final RD Work Plan<br>(Task III)   | within thirty (30) days<br>of receipt of all<br>comments on Draft RD Work<br>Plan |
| Design Phases<br>(Task IV)   |   |
| - Preliminary Design (60% completion) <ul style="list-style-type: none"><li>o design criteria</li><li>o project delivery schedule</li><li>o preliminary plans, drawings and sketches</li><li>o required specifications</li><li>o CQAPP objectives</li><li>o other required elements</li></ul>  | within sixty (60) days of<br>receipt of approval of<br>Final RD Work Plan         |
| - Pre-final Design (95% completion) <ul style="list-style-type: none"><li>o design plans and specifications</li><li>o initial cost estimate</li><li>o initial RA project schedule</li><li>o initial O&amp;M Plan</li><li>o initial Contingency Plan</li><li>o initial Health and Safety specifications</li><li>o initial CQAPP</li><li>o other required elements</li></ul> | within sixty (60) days of<br>receipt of approval of<br>Preliminary Design         |
| - Final Design (100% completion) <ul style="list-style-type: none"><li>o final design plans and specifications</li><li>o final cost estimate</li><li>o final RA project schedule</li><li>o final O&amp;M Plan</li><li>o final Contingency Plan</li><li>o final Health &amp; Safety Plan specifications</li></ul>   | within thirty (30) days<br>of approval of Pre-final<br>Design                     |

|   |   |
|---|---|
| <ul style="list-style-type: none"> <li>o final CQAPP</li> <li>o preliminary Field Sampling Plan</li> <li>o other required elements</li> </ul> |   |
| Draft RA Work Plan<br>(Task V)  | within forty-five (45)<br>days of receipt of EPA's<br>authorization to proceed  |
| Health and Safety Plan for<br>RA field activities<br>(Task V)   | within forty-five (45)<br>days of receipt of EPA's<br>authorization to proceed  |
| Final RA Work Plan<br>(Task V)  | within thirty (30) days<br>of receipt of all<br>comments on Draft RA Work<br>Plan   |
| Draft Construction Quality<br>Control Plan (by constructor)<br>(Task VI)  | within thirty (30) days<br>of submittal of draft RA<br>Work Plan  |
| Final Construction Quality<br>Control Plan<br>(Task VI)   | within thirty (30) days<br>of receipt of all<br>comments on Draft<br>Construction Quality<br>Control Plan   |
| Draft Construction Contingency<br>Plan (Task VI)  | to be submitted with<br>Draft Construction<br>Quality Control Plan  |
| Final Construction Contingency<br>Plan (Task VI)  | within thirty (30) days<br>of receipt of all<br>comments on Draft<br>Construction Contingency<br>Plan   |
| Begin construction of Remedial<br>Actions   | within thirty (30) days<br>of approval of Final RA<br>Work Plan, Final<br>Construction Quality<br>Control Plan, or Final<br>Construction Contingency<br>Plan, whichever is later<br>in time |
| Pre-final Inspection Report<br>(Task IV)  | within thirty (30) days<br>after Pre-final<br>Inspection by EPA   |



Draft Remedial Action  
Implementation Report  
(Task IV)

Final Remedial Action  
Implementation Report  
(Task IV)

Progress Reports  
(Task VII)

within sixty (60) days of  
satisfactory completion  
of Final Inspection

within thirty (30) days  
of receipt of all  
comments on Draft  
Remedial Action  
Implementation Report

Due by the 10th day of  
the month following the  
reporting period

**SUBMISSION SUMMARY**  
**FOR**  
**ALTERNATIVE TREATMENT DESIGN AND IMPLEMENTATION**

| <u>Submission</u>  | <u>Due Date</u>   |
|--|---|
| Draft Pilot Study Work Plan<br>(Task I)                      | within forty-five (45) days of receipt of EPA's authorization to proceed          |
| Final Pilot Study Work Plan<br>(Task I)                      | within thirty (30) days of receipt of all comments on Draft Pilot Study Work Plan |
| Draft Pilot Study Report<br>(Task II)                        | within thirty (30) days of completion of Pilot Study                              |
| Final Pilot Study Report<br>(Task II)                        | within thirty (30) days receipt of all comments on Draft Pilot Study Report       |
| Draft RD Work Plan<br>(Task III)                             | within thirty (30) days of receipt of EPA's approval of Pilot Study Report        |
| Health and Safety Plan for RD field activities<br>(Task III) | within thirty (30) days of receipt of EPA's approval of Pilot Study Report        |
| Final RD Work Plan<br>(Task III)                             | within thirty (30) days of receipt of all comments on Draft RD Work Plan          |
| Design Phases<br>(Task IV)                                   |   |
| - Preliminary Design (60% completion)                        | within sixty (60) days of receipt of approval of Final RD Work Plan               |
| o design criteria  |   |
| o project delivery schedule                                  |   |
| o preliminary plans, drawings and sketches                   |   |
| o required specifications                                    |   |

|   |   |
|---|---|
| <ul style="list-style-type: none"> <li>o CQAPP objectives</li> <li>o other required elements</li> </ul>   |   |
| <ul style="list-style-type: none"> <li>- Pre-final Design (95% completion) <ul style="list-style-type: none"> <li>o design plans and specifications</li> <li>o initial cost estimate</li> <li>o initial RA project schedule</li> <li>o initial O&amp;M Plan</li> <li>o initial Contingency Plan</li> <li>o initial Health &amp; Safety specifications</li> <li>o initial CQAPP</li> <li>o other required elements</li> </ul> </li> </ul>  | within sixty (60) days of receipt of approval of Preliminary Design                           |
| <ul style="list-style-type: none"> <li>- Final Design (100% completion) <ul style="list-style-type: none"> <li>o final design plans and specifications</li> <li>o final cost estimate</li> <li>o final RA project schedule</li> <li>o final O&amp;M Plan</li> <li>o final Contingency Plan</li> <li>o final Health &amp; Safety Plan specifications</li> <li>o final CQAPP</li> <li>o preliminary Field Sampling Plan</li> <li>o other required elements</li> </ul> </li> </ul> | within thirty (30) days of approval of Pre-final Design                                       |
| Draft RA Work Plan<br>(Task V)  | within forty-five (45) days of receipt of EPA's authorization to proceed                      |
| Health and Safety Plan for RA field activities<br>(Task V)  | within forty-five (45) days of receipt of EPA's authorization to proceed                      |
| Final RA Work Plan<br>(Task V)  | within thirty (30) days of receipt of all comments on Draft RA Work Plan                      |
| Draft Construction Quality Control Plan (by constructor)<br>(Task VI)   | within thirty (30) days of submittal of draft RA Work Plan                                    |
| Final Construction Quality Control Plan<br>(Task VI)  | within thirty (30) days of receipt of all comments on Draft Construction Quality Control Plan |

Draft Construction Contingency  
Plan (Task VI)

to be submitted with  
Draft Construction  
Quality Control Plan

Final Construction Contingency  
Plan (Task VI)

within thirty (30) days  
of receipt of all  
comments on Draft  
Construction Contingency  
Plan

Begin construction of Remedial  
Actions

within thirty (30) days  
of approval of Final RA  
Work Plan, Final  
Construction Quality  
Control Plan, or Final  
Construction Contingency  
Plan, whichever is later  
in time

Pre-final Inspection Report  
(Task IV)

within thirty (30) days  
after Pre-final  
Inspection by EPA

Draft Remedial Action  
Implementation Report  
(Task IV)

within sixty (60) days of  
satisfactory completion  
of Final Inspection

Final Remedial Action  
Implementation Report  
(Task IV)

within thirty (30) days  
of receipt of all  
comments on Draft  
Remedial Action  
Implementation Report

Progress Reports  
(Task VII)

Due by the 10th day of  
the month following the  
reporting period